

2005 Annual Report

Multimodal Operations

Railroad Section



Missouri Department of Transportation

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Railroads Operating in the State of Missouri

Arkansas & Missouri Railroad Company
BNSF Railway Company
Branson Scenic Railway
Missouri North Central Railroad
Columbia Terminal Railroad
Missouri & Northern Arkansas Railroad
Norfolk Southern Railway Company
Terminal Railroad Association of St. Louis
Missouri Central/Central Midland Railway
Kansas City Southern Railway Company
St. Louis Iron Mountain Railroad
Jackson, Gordonville, Delta Railroad
Manufacturer's Railroad Company
ICE Railroad Company
Union Pacific Railroad Company
Kansas City Terminal Railway
Smokey Hills Railroad
Southeast Missouri Regional Port Authority
Metro (aka MetroLink)
Kaw River Railroad
CSX Corporation
Missouri Valley Park Switching Service

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Executive Summary

The Missouri Department of Transportation, Multimodal Operations Division, Railroad Section has prepared the following report for use by the Missouri Highway and Transportation Commission, public authorities and others involved within railroads and in highway rail safety efforts. The information contained herein is provided by reports received from railroad companies, Missouri State Highway Patrol, Federal Railroad Administration and by the Railroad Section within the Missouri Department of Transportation. This data is used by the Railroad Section to help evaluate and upgrade crossings and improve the overall transportation experience that will delight our customers and promote a prosperous Missouri.

In 2005, Missouri experienced a significant increase in the number of grade crossing collisions within the state. Missouri had 62 grade crossing collisions at public grade crossings, which is an increase of 17 from 2004. Seventeen people lost their lives in those grade crossing collisions and another 29 individuals received nonfatal injuries. This represents a 69% increase compared to 2004 statistics. In addition to the collisions at public grade crossings, nine occurred at private grade crossings that resulted in three fatalities and two injuries.

The Railroad Section has also determined 37% of all crashes in 2005 occurred at a crossing with active warning devices. Nineteen percent of fatalities resulted from driving around gates at active warning devices. June, July and November account for the highest rate of public grade crossing collisions, both reporting nine each.

In 2005, the railroad companies reported 19 incidents that involved individuals who trespassed on railroad property. Seven of those individuals received fatal injuries and eleven individuals sustained serious injuries while trespassing on railroad properties.

The Railroad Section responded to 103 citizen complaints regarding railroad issues. Our section is responsible for investigating every complaint and works with all the railroad companies and private industries, as well as MoDOT or the local road authority resolve these issues.

2006 Multimodal Railroad Section Business Goals

The Railroad Section has taken this increase in grade crossing collisions to heart and feels that more should be done to improve the overall safety of grade crossings within the state of Missouri. The following are some of the overall goals of our business unit for 2006:

- ✓ Conduct a mini-summit with representatives from the railroads and key leaders within the safety community to reduce grade crossing collisions;
- ✓ Increase educational outreach by 15%;
- ✓ Increase enforcement opportunities with Operation Lifesaver by 10% in target counties;
- ✓ Investigate all citizen complaints within two weeks of date received;
- ✓ Start and complete 50% of a crossing inventory program;
- ✓ Conduct additional state inspections to emphasize safety;
- ✓ Implement outcomes of 2006 mini-summit findings.

Funding

The Highways and Transportation Commission normally funds 80% of each crossing project using federal funds and 20% from the Grade Crossing Safety Account established by State funds. Normal funding each year is \$1.2 million in state funds and \$4 million in federal funds. A recent increase effective October 1, 2005 raised the federal portion to near \$6 million. Railroads and other entities normally participate in corridor or other projects at unique crossings and share in a percentage of the total cost of installation in those instances.

Public grade crossing improvements remain a top priority to the Multimodal Railroad Section. These projects resulted in authorizing the Railroad Section to close eight public at grade crossings, the installation of 21 crossing gates and ten other signalized upgrades during 2005. (See Table II)

Since 2000, the number of crossings in Missouri has decreased by 139, or 2%. MoDOT is working to obtain more closures through corridor projects. MoDOT is trying to gain several closures and upgrade existing crossings with the efforts of city, county, railroad, and state funds. These corridor projects take several years to complete and we believe we will start seeing the benefits of corridor closures in the next two or three years. In the year 2000, the primary reason for closures were abandoned tracks.

Of all public grade crossings in Missouri, 44% are now equipped with active warning devices. This is an increase of 8% of all public crossings with active warning devices since 2000.

Passenger Rail

Missouri offers two-round trip trains daily between St. Louis and Kansas City with stops in Kirkwood, Washington, Hermann, Jefferson City, Sedalia, Warrensburg, Lee's Summit, and Independence. The Missouri Legislature provides financial support to the Missouri Department of Transportation for Amtrak to provide intercity rail passenger service between St. Louis and Kansas City.

St. Louis to Kansas City Service

State Fiscal Year (July 1 – June 30)	Amtrak State Cost	Ridership
2001	\$6,047,000	207,928
2002	\$6,057,000	188,800
2003	\$6,200,000	167,245
2004	\$6,147,662	162,446
2005	\$6,400,000	171,410

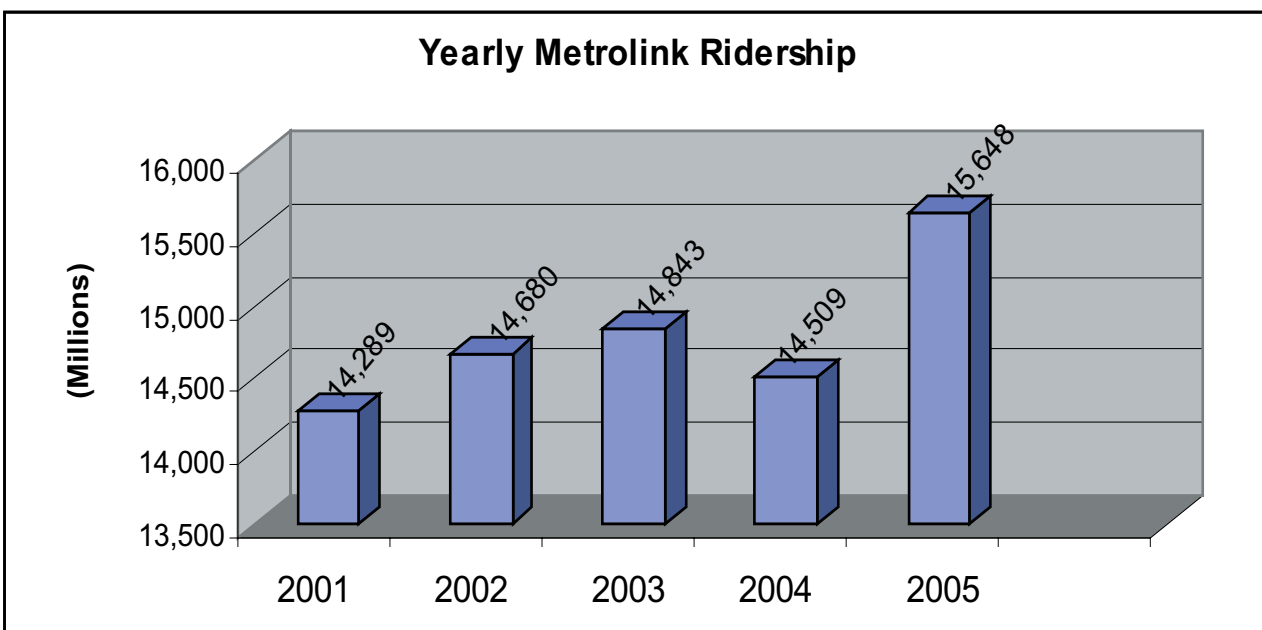
Amtrak also operates two long distance trains through Missouri:

- “Southwest Chief” (daily Chicago-La Plata/Kansas City-Los Angeles)
- “Texas Eagle” (daily Chicago-St. Louis/Poplar Bluff-Dallas-San Antonio)

Light Rail Safety Oversight Program

MoDOT's State Safety and Security Oversight program for light rail transit has intensified for 2005. MoDOT's Railroad section is responsible for routine safety audits and reporting as required by the Federal Transit Administration, for the current 35 miles operated by Metro St. Louis. MoDOT is participating in the safety certification process of the Metro St. Louis Cross County Extension. The 8.2-mile addition will provide new MetroLink access to University City, Clayton, Brentwood, Maplewood and Shrewsbury. The \$500+ million project is scheduled to begin service in the fall of 2006. MoDOT's rail transit safety specialist is actively participating in Metros' safety certification process, which is required before passenger service begins.

Ridership on the MetroLink system has increased significantly for 2005. Approximately one million more passengers used MetroLink compared to 2004, which represents a 9.2% increase. Projections for the Cross County Extension estimate an additional 18,000 passengers, per weekday, will ride MetroLink.



Crossing Statistics

Types and Number of Crossings in Missouri

Public Crossings At-grade: 3,826

Public Grade Separations:

Railroad Over Road (Overpass):	405	
Railroad Under Road (underpass):	<u>665</u>	
Total Public Grade Separations:		1,070

Private Crossings:

Private Farm Crossings:	2,016	
Private Residence Crossings:	328	
Private Recreational Crossings:	30	
Private Industrial Crossings:	<u>603</u>	
Total Private Crossings		2,977

Total Crossings in Missouri **7,873**

Table I
Types of Signs and Signals in Missouri

Type of Signal	2005	2000	1997	1994
Mast-Mounted Flashing Lights	616	602	678	760
Cantilevered FL Over Traffic Lanes	111	134	141	154
Cantilevered FL Not Over Traffic Lane	15	12	13	13
Full Set of Lights and Gates	940	832	720	630
Highway Traffic Signals	9	6	6	4
Wigwags	3	5	8	12
Bells	11	11	26	31
Reflectorized Cross bucks	2086	2105	2367	2439
Permanent Stop Signs	24	3	3	4
Permanent Yield Signs	1			
Exempt Crossings/Signs	25			
None	158	222	222	305
Other	0	1	0	1
Total Public and Private Grade Crossings in Missouri:	3826	3933	4184	4353

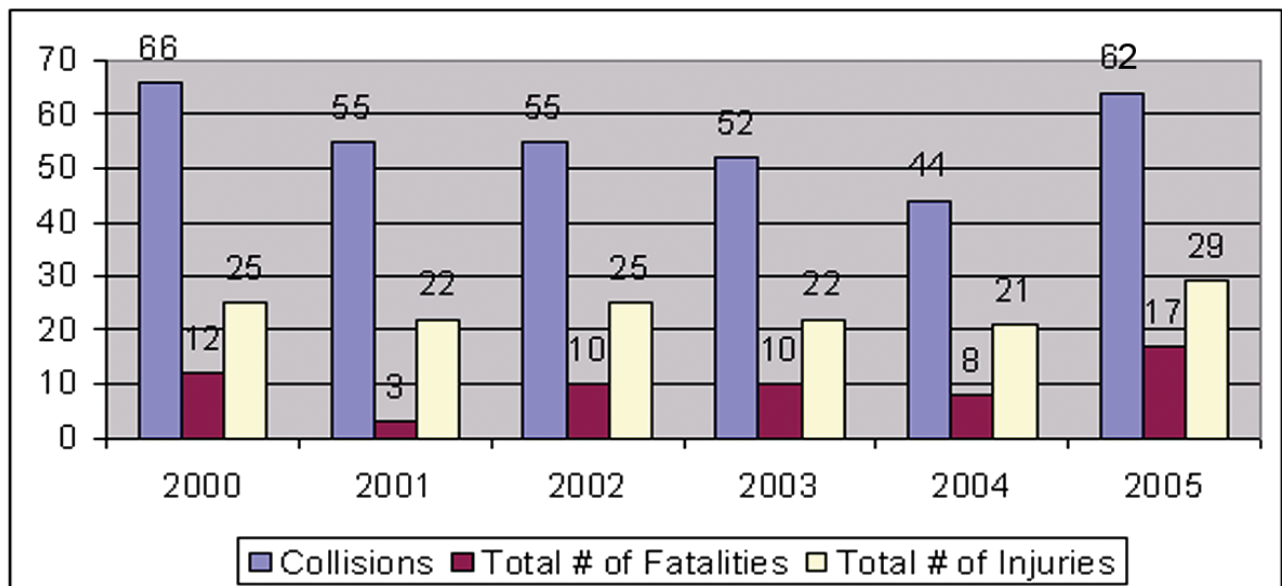
Table I – reflects only years 1994, 1997, 2000, & 2005 – Years 2000 –2004 were not summarized via this report.

Table II
Crossings and Improvements Authorized

	2005	2000	1997	1994
Crossings Opened	2	3	5	3
Crossing Closures	8	8	13	12
Signals and Gates	21	35	46	66
Grade Separations Opened	0	9	3	4
Separations Replaced	3	1	4	4
Crossing Modifications	0	7	5	0
Signal Circuitry Upgrades	1	3	6	0
Exempt Crossings/Signs	3	Information is unavailable		
Permanent Yield Sign	6			
Permanent Stop Sign	24			
LED Light Improvement Projects	9			
Quiet Zone Improvements	10			

Table II – reflects only years 1994, 1997, 2000 & 2005 – Years 200 –2004 were not summarized via this report.

Table III
General Collision Statistics, 2000 – 2005



2005 Highway Rail Crossing Fatalities

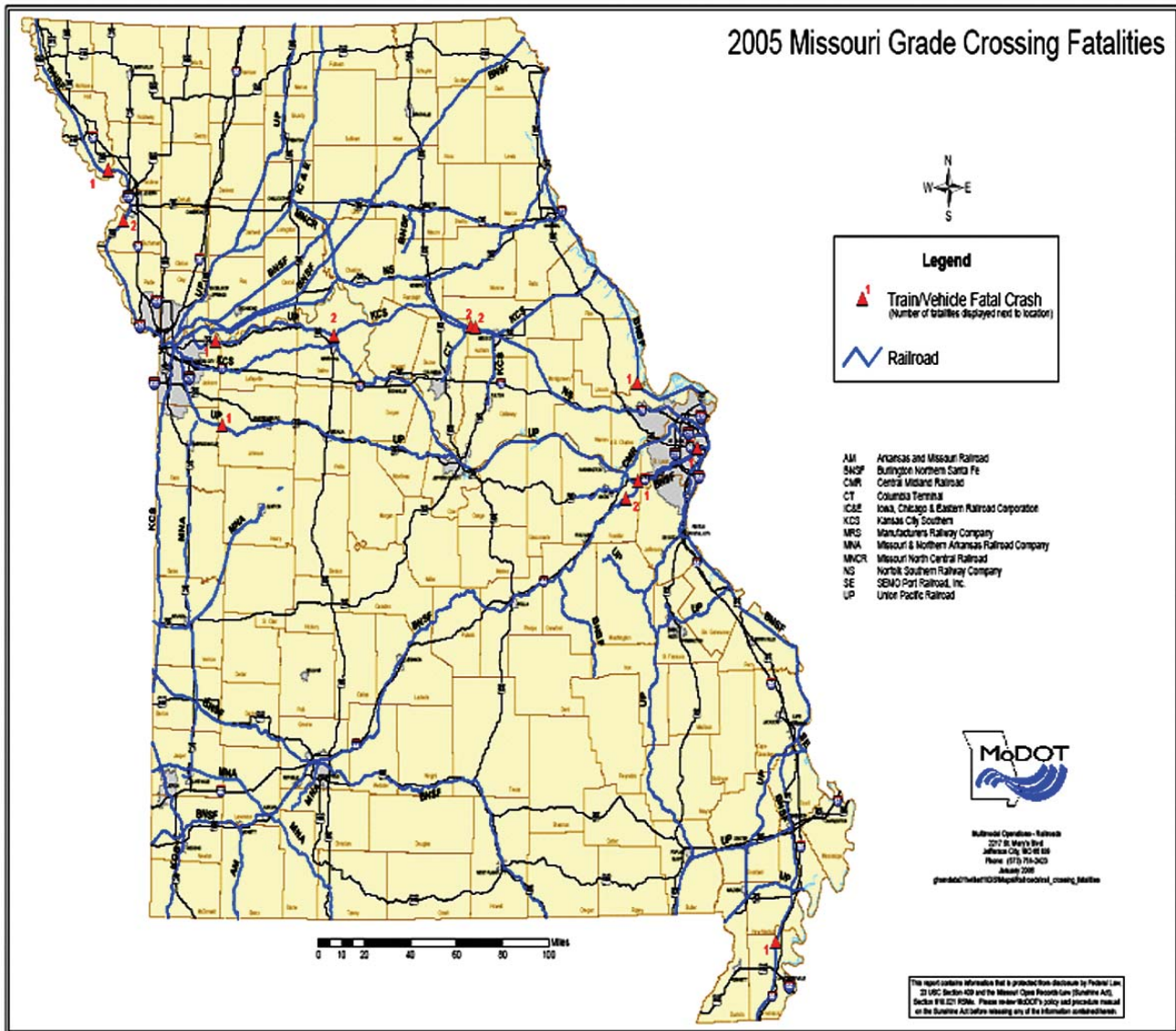
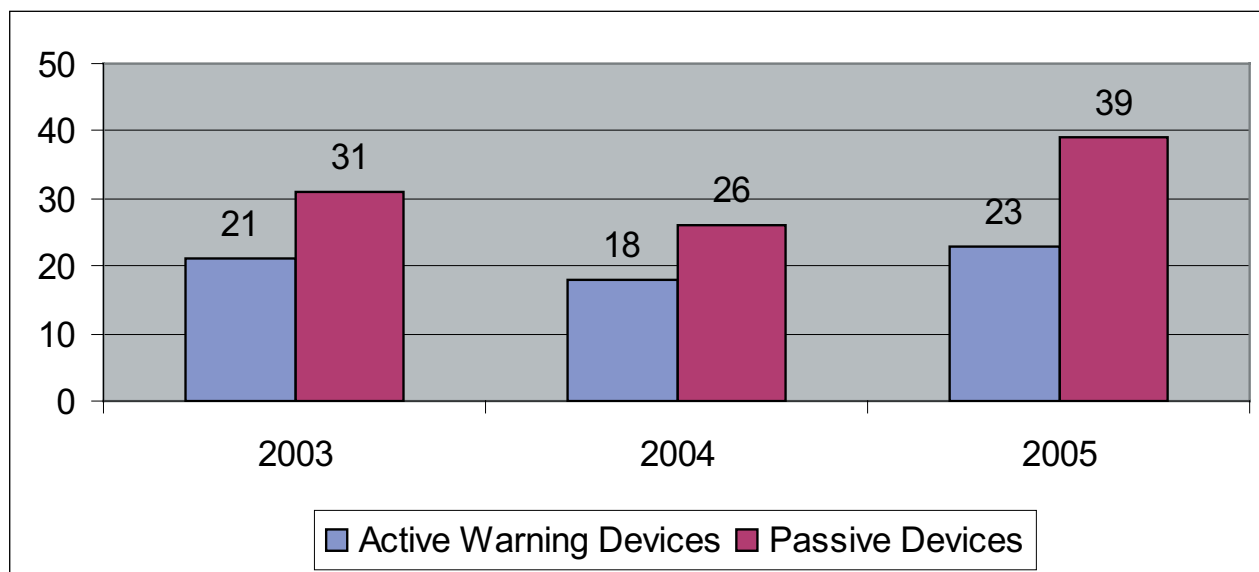


Table IV
2005 Collisions at Public Crossing & Warning Types



In 2005, 37% of all grade crossing collisions occurred at crossings with active warning devices.

Table V
Collisions Per Month in 2005

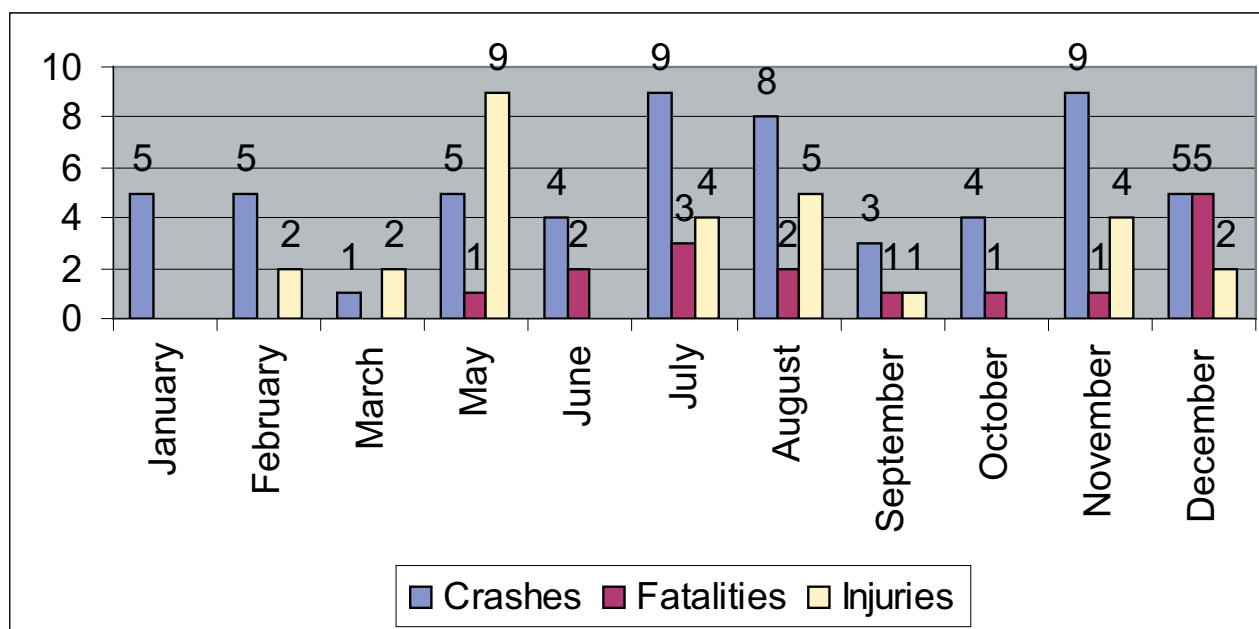
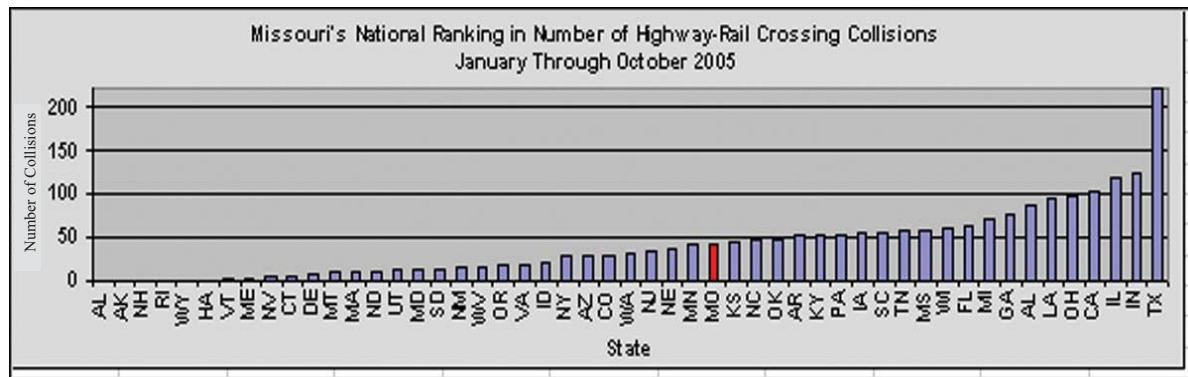
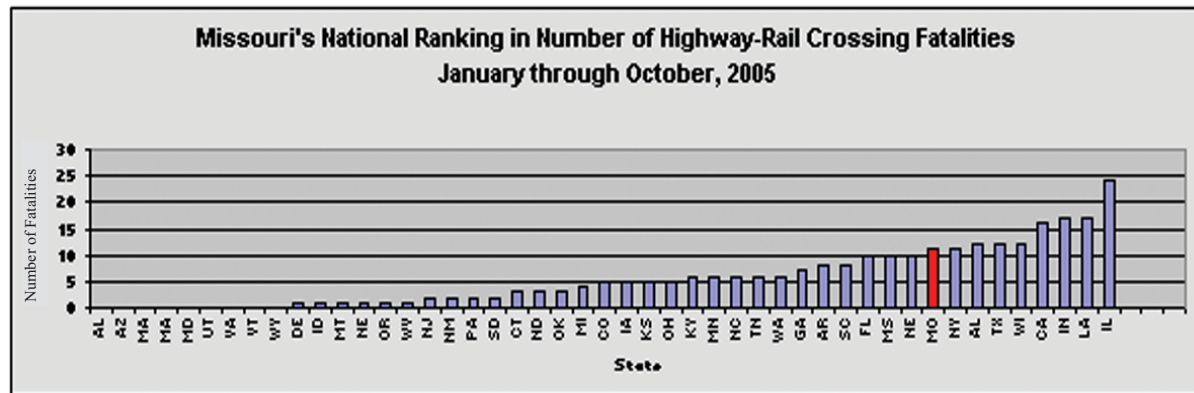


Table VI
Missouri Ranking of Highway-Rail Crossing Fatalities



By comparing motor vehicle traffic collisions with those involving trains at grade crossings, it is apparent the severity rate of train-involved collisions is much greater.

Table VII
2005 Reportable Incidents

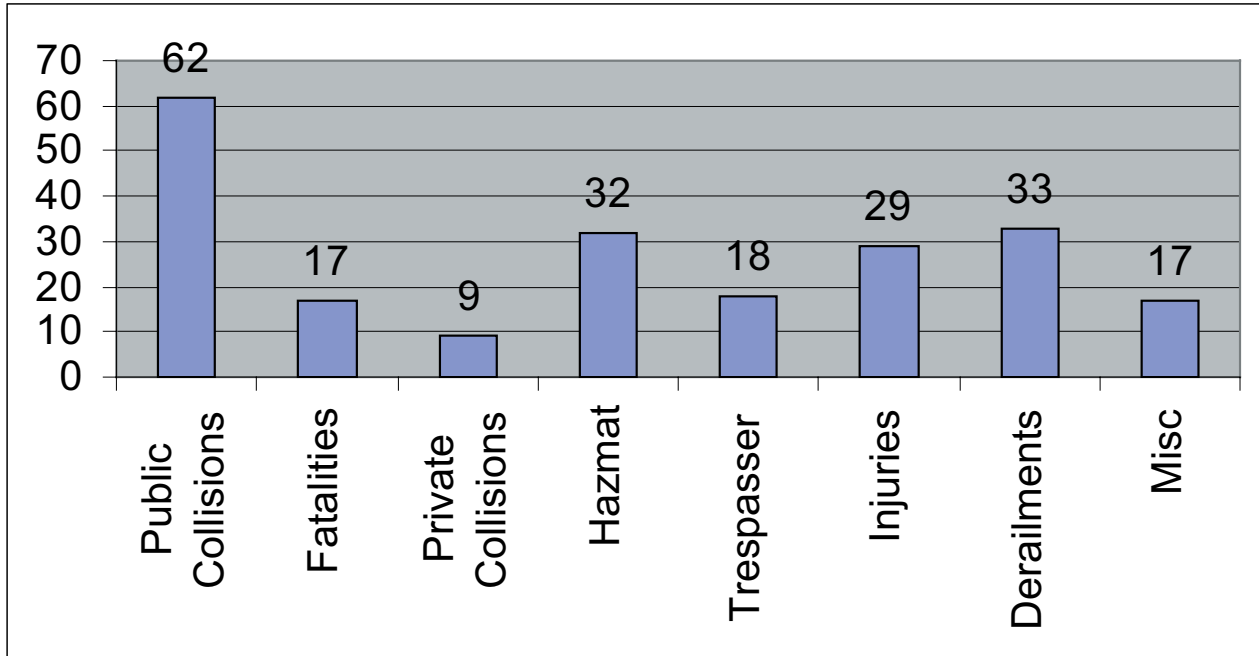
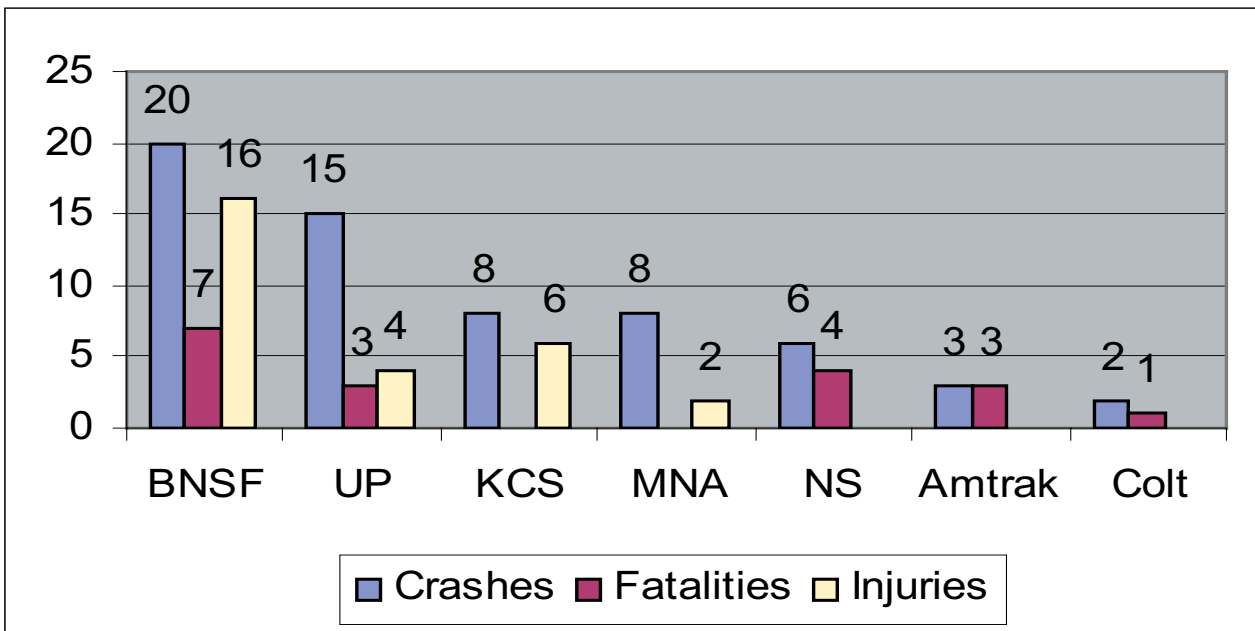


Table VIII
Collisions by Railroads in 2005



History

The Missouri Department of Transportation, Multimodal Operations Division, Railroad Section is mandated by Missouri Revised Statutes with the responsibility of providing safety oversight of railroad operations within the State of Missouri. The responsibility has been vested with this Section, and its predecessors the Public Service Commission and the Department of Economic Development, Division of Motor Carrier and Railroad Safety since 1913. The statutes contained in Chapters 388, 389 and 622 obligate the State of Missouri through this section to enforce the statutes and rules to promote and safeguard the health and welfare of the general public, the railroads, and the railroad employees. The statutes grants the Missouri Department of Transportation the authority to promulgate rules enforced by this Railroad Section and applies to all railroads and companies which are part of the general railroad system in Missouri and any light rail system.

The Railroad Section exercises its oversight responsibility through the enforcement of State laws and rules through a cooperative agreement with the U.S. Department of Transportation's Federal Railroad Administration (FRA), Federal Transit Administration (FTA) and Federal Highway Administration (FHWA) to enforce Federal laws and regulations. The Railroad Section is designated with the task of implementing MoDOT's safety oversight on railroads and light rail systems. The major areas handled by Multimodal Operations Railroad Section include:

- Track safety
- Grade crossing signal inspection
- Grade crossing safety
- Employee Safety
- Railroad Operating practices
- Transporting Hazardous Materials via rail in the state

Light rail safety oversight includes System Safety and Security review as well as all the above specific topic concerns that apply to railroads.

Track Safety

The railroad section has two inspectors that are certified by the Federal Railroad Administration (FRA) to conduct inspections and enforce the Track Safety Standards. Through it's cooperative state participation program with the FRA, the inspectors conduct track safety inspections on all Missouri rail tracks. As part of the Track Safety Inspection Program, the track inspectors are responsible for the monitoring and enforcement of the FRA Railroad Roadway Worker Safety Standards. These standards prescribe proper workplace safety procedures and equipment for railroad workers engaged in railroad bridge construction, repair and inspection and procedures for the protection of railroad engineering or maintenance of way or signal employees while working on or near railroad tracks.

Grade Crossing Signal Safety

The Railroad Section's two-signal inspection specialists are certified by the Federal Railroad Administration (FRA) to conduct inspections and enforce the Grade Crossing Signal System Safety Standards. Through its cooperative state participation program with the FRA, the inspectors conduct grade crossing signal safety inspections on the grade crossing signal systems in the State. As part of the Grade Crossing Signal Safety Inspection Program, the signal inspectors are responsible for the monitoring and enforcement of the FRA Railroad Roadway Worker Safety Standards.

Grade Crossing Safety

All of the Railroad Section inspectors are responsible for conducting inspections of all public grade crossings in the State of Missouri. Inspectors conduct these inspections to assure compliance with State regulations for grade crossing safety, construction, and railroad operations and ride quality issues.

Employee Safety

The Railroad Section is engaged in safety oversight of working conditions for railroad employees within the state. MoDOT Railroad Section rules include the safe and sanitary conditions of railroad facilities, rolling stock, and equipment used by railroad employees. They include the authority to prescribe the material and condition of areas adjacent to railroad tracks where employees are required to walk and minimum standards for construction of fixed objects over and adjacent to railroad tracks and the distance between tracks.

Operating Practices and Transporting Hazardous Materials

Operating Practice inspections assure that trains are being operated within and through the state in a manner that is consistent with proper rules and procedures. Human error/factors are one of the leading causes for incidents in the state. The Railroad Section works with the FRA to conduct hazardous material inspections, and the Department of Natural Resources and SEMA to conduct any rail inspections concerning hazardous materials.

Table IX
Complaints Investigated by the Railroad Section for 2005

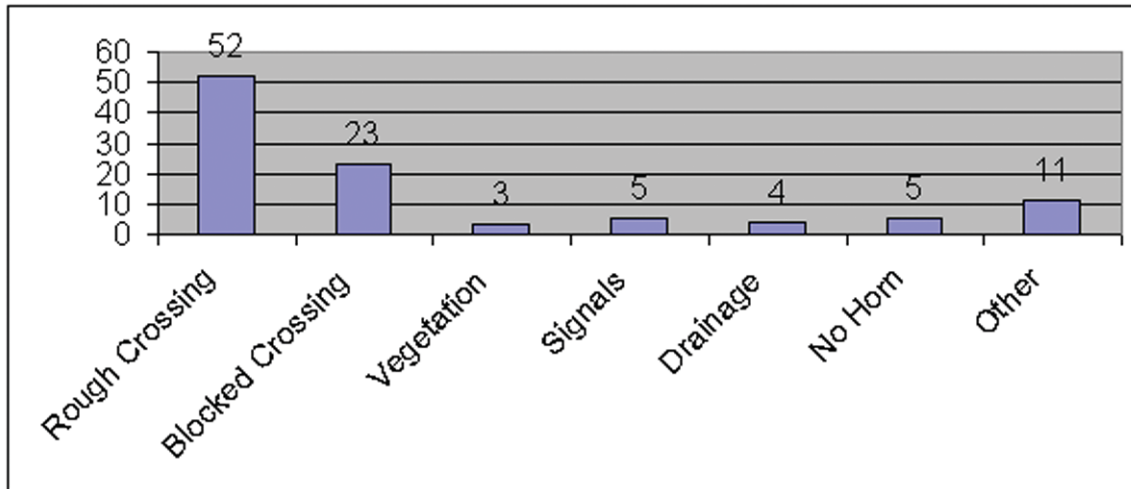
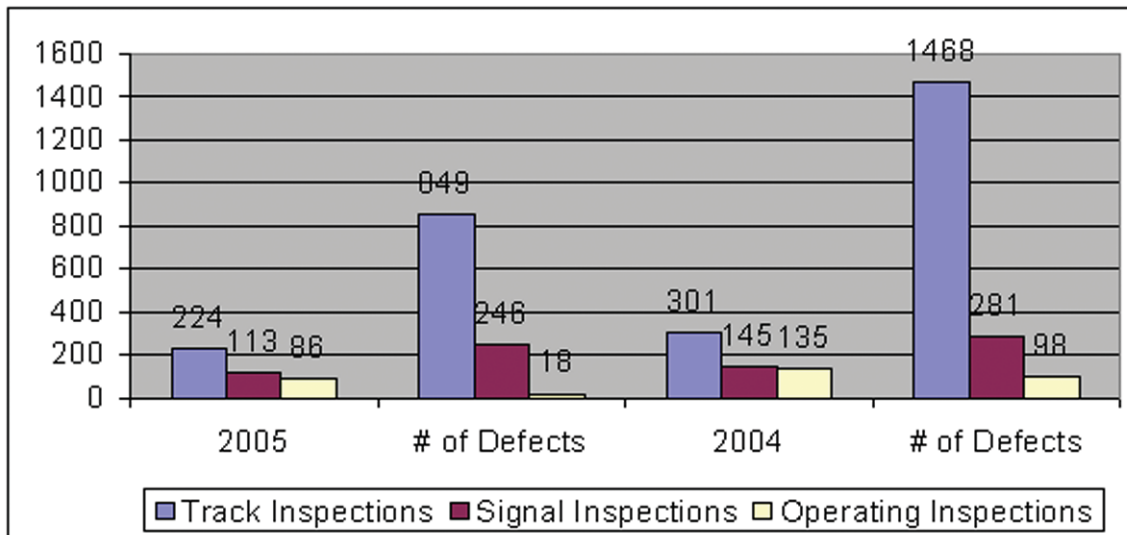


Table X
Federal Inspections Performed by MoDOT's Railroad Staff 2005



Railroad Safety Initiatives

In addition to the regulatory requirements, MoDOT is actively involved in the educational aspects of railroad safety. Five railroad staff are certified as Operation Lifesaver presenters and are actively working to educate the citizens of Missouri about the hazards of working, living, driving and playing around railroad tracks. In addition to Operation Lifesaver, MoDOT employees work with the MoDOT Highway Safety Division to provide exhibits at education fairs to promote railroad safety.

Table XI
Operation Lifesaver Presentations in 2005

Type	Number of	Audience	% of all	% of Aud.
	Presentations	Total	Pres.	Total
Elementary	327	11,944	33.92%	38.90%
Dr. Ed.	164	4,719	17.01%	15.37%
Jr. High	60	1,583	6.22%	5.16%
High School	48	3302	4.98%	10.75%
Civic/Ch/School	53	3,104	5.50%	10.11%
Truck Dr.	141	2379	14.63%	7.75%
School Bus	43	1,874	4.46%	6.10%
Commercial Drivers	91	640	9.44%	2.08%
Business	18	385	1.87%	1.25%
Law Enf.	5	66	0.52%	0.21%
Fire/EMT	12	650	1.24%	2.12%
Senior Citizens	2	60	0.20%	0.20%
Trespassers			0.00%	0.00%
TOTALS:	964	30,706	100.00%	100.00%

Presentations by RR/Agency

RR/Agency	Number of	Audience	% of all	% of Aud.
	Presentations	Total	Pres.	Total
BNSF	30	1,407	3.11%	4.58%
BSDA	71	447	7.37%	1.46%
FRA	34	1,101	3.53%	3.59%
ICE	15	335	1.56%	1.09%
KCS	87	1,694	9.02%	5.52%
MoDOT	91	2,453	9.44%	7.99%
MSHP	9	223	0.93%	0.73%
NS	83	2616	8.61%	8.52%
UP	153	7,482	15.87%	24.37%
Vol.	391	12,948	40.56%	42.17%
TOTALS:	964	30,706	100.00%	100.00%